

10/688786

FILE 'REGISTRY' ENTERED AT 12:36:06 ON 08 DEC 2004

E "GLP-1"/CN 5
E "GLP 1"/CN 5
L1 1 S E3
E GLP 2/CN 5
E "GLP-2"/CN 5
L2 1 S E4
E "GLP-1"/CN 5
L3 3 S E4-E6
E EXENDIN 3/CN 5
E EXENDIN 4/CN 5
L4 13 S EXENDIN 3 ?/CN
L5 41 S EXENDIN 4 ?/CN
L6 57 S L1 OR L2 OR L3 OR L4 OR L5
E MONOSACCHARIDES/CN 5
E SUCROSE/CN 5
L7 1 S E3
E TREHALOSE/CN 5
L8 2 S E3-4
E MANNITOL/CN 5
L9 2 S E3
E SUGAR ALCOHOL/CN 5
L10 5 S L7 OR L8 OR L9

E "GLUCAGON-LIKE PEPTIDE 1"/CN
L11 122 S ("GLUCAGON-LIKE PEPTIDE 1"? OR "GLUCAGON-LIKE PEPTIDE 2?")/CN

58 S ("GLUCAGON-LIKE PEPTIDE I"? OR "GLUCAGON-LIKE PEPTIDE II?")/C
L17 232 S L1 OR L2 OR L3 OR L4 OR L5 OR L11 OR L17
L18

E "POLY(LACTIDE)"/CN 5
E "POLY(GLYCOLIDE)"/CN 5
E "POLY(LACTIDE-CO-GLYCOLIDES)"/CN 5
L22 1 S E2
E "POLY(LACTIC ACID)"/CN 5
L23 1 S E3
E "POLY(GLYCOLIC ACID)"/CN 5
L24 1 S E3
E "POLY(LACTIC ACID-CO-GLYCOLIC ACID)"/CN 5
E POLYCAPROLACTONE/CN 5
L25 2 S E3
E POLYCARBONATES/CN 5
L26 1 S E3
E POLYESTERAMIDES/CN 5
E POLYANHYDRIDES/CN 5
L27 1 S E4
E "POLY(AMINO ACIDS)"/CN 5
E POLYORTHOESTERS/CN 5
E POLYCYANOACRYLATES/CN 5
E "POLY(P-DIOXANONE)"/CN 5
E "POLY(P-DIOXANONE)"/CN 5
L28 2 S E3-4
E "POLY(ALKYLENE OXALATE)"/CN 5
E POLYURETHANES/CN 5
E POLYURETHANE/CN 5

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E "GLYCOLIDE-LACTIDE"/CN 5
L34 3 S E4-5 OR E8
L35 11 S L22 OR L23 OR L24 OR L25 OR L26 OR L27 OR L28 OR L34

E POLYCYANOACRYLATE/CN 5
E "POLY(ALKYLENE OXALATE)"/CN 5

FILE 'CAPLUS' ENTERED AT 14:25:24 ON 08 DEC 2004
L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON "GLP 1"/CN
L2 1 SEA FILE=REGISTRY ABB=ON PLU=ON "GLP-2 (RANA PIPIENS)"/CN
L3 3 SEA FILE=REGISTRY ABB=ON PLU=ON ("GLP-1 (7- 36)"/CN OR
"GLP-1 (RANA PIPIENS ISOFORM A)"/CN OR "GLP-1 (RANA PIPIENS
ISOFORM B)"/CN)
L4 13 SEA FILE=REGISTRY ABB=ON PLU=ON EXENDIN 3 ?/CN
L5 41 SEA FILE=REGISTRY ABB=ON PLU=ON EXENDIN 4 ?/CN
L7 1 SEA FILE=REGISTRY ABB=ON PLU=ON SUCROSE/CN
L8 2 SEA FILE=REGISTRY ABB=ON PLU=ON (TREHALOSE/CN OR "TREHALOSE
(MOUSE)"/CN)
L9 2 SEA FILE=REGISTRY ABB=ON PLU=ON MANNITOL/CN
L10 5 SEA FILE=REGISTRY ABB=ON PLU=ON L7 OR L8 OR L9
L11 122 SEA FILE=REGISTRY ABB=ON PLU=ON ("GLUCAGON-LIKE PEPTIDE 1"?
OR "GLUCAGON-LIKE PEPTIDE 2"?) /CN
L14 444382 SEA FILE=CAPLUS ABB=ON PLU=ON L10 OR SUGAR OR MONOSACCHARIDE
OR DISACCHARIDE OR (MONO OR DI) (W) SACCHARIDE OR SUCROSE OR
TREHALOSE OR MANNITOL
L17 58 SEA FILE=REGISTRY ABB=ON PLU=ON ("GLUCAGON-LIKE PEPTIDE I"?
OR "GLUCAGON-LIKE PEPTIDE II"?) /CN
L18 232 SEA FILE=REGISTRY ABB=ON PLU=ON L1 OR L2 OR L3 OR L4 OR L5
OR L11 OR L17
L19 2674 SEA FILE=CAPLUS ABB=ON PLU=ON L18 OR GLP1 OR GLP2 OR (GLP OR
GLUCAGON LIKE) (2W) (1 OR 2 OR I OR II) OR GLPI OR GLPII OR
EXENDIN(1W) (3 OR 4 OR III OR IV)
L20 114 SEA FILE=CAPLUS ABB=ON PLU=ON L14 AND L19
L31 7 SEA FILE=CAPLUS ABB=ON PLU=ON L20 AND (POLYLACTIDE OR
POLYGLYCOLIDE OR POLYLACTIC OR POLYGLYCOLIC OR POLYCAPROLACTONE
OR POLYCARBONATE OR POLYESTERAMIDE OR POLYANHYDRIDE OR
POLYAMINO OR POLYORTHOESTER OR POLYURETHANE)

L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON "GLP 1"/CN
L2 1 SEA FILE=REGISTRY ABB=ON PLU=ON "GLP-2 (RANA PIPIENS)"/CN
L3 3 SEA FILE=REGISTRY ABB=ON PLU=ON ("GLP-1 (7- 36)"/CN OR
"GLP-1 (RANA PIPIENS ISOFORM A)"/CN OR "GLP-1 (RANA PIPIENS
ISOFORM B)"/CN)
L4 13 SEA FILE=REGISTRY ABB=ON PLU=ON EXENDIN 3 ?/CN
L5 41 SEA FILE=REGISTRY ABB=ON PLU=ON EXENDIN 4 ?/CN
L7 1 SEA FILE=REGISTRY ABB=ON PLU=ON SUCROSE/CN
L8 2 SEA FILE=REGISTRY ABB=ON PLU=ON (TREHALOSE/CN OR "TREHALOSE
(MOUSE)"/CN)
L9 2 SEA FILE=REGISTRY ABB=ON PLU=ON MANNITOL/CN
L10 5 SEA FILE=REGISTRY ABB=ON PLU=ON L7 OR L8 OR L9
L11 122 SEA FILE=REGISTRY ABB=ON PLU=ON ("GLUCAGON-LIKE PEPTIDE 1"?
OR "GLUCAGON-LIKE PEPTIDE 2"?) /CN
L14 444382 SEA FILE=CAPLUS ABB=ON PLU=ON L10 OR SUGAR OR MONOSACCHARIDE

Searcher : Shears 571-272-2528

OR DISACCHARIDE OR (MONO OR DI) (W) SACCHARIDE OR SUCROSE OR
TREHALOSE OR MANNITOL

L17 58 SEA FILE=REGISTRY ABB=ON PLU=ON ("GLUCAGON-LIKE PEPTIDE I"?
OR "GLUCAGON-LIKE PEPTIDE II"?) /CN

L18 232 SEA FILE=REGISTRY ABB=ON PLU=ON L1 OR L2 OR L3 OR L4 OR L5
OR L11 OR L17

L19 2674 SEA FILE=CAPLUS ABB=ON PLU=ON L18 OR GLP1 OR GLP2 OR (GLP OR
GLUCAGON LIKE) (2W) (1 OR 2 OR I OR II) OR GLPI OR GLPII OR
EXENDIN(1W) (3 OR 4 OR III OR IV)

L20 114 SEA FILE=CAPLUS ABB=ON PLU=ON L14 AND L19

L32 5 SEA FILE=CAPLUS ABB=ON PLU=ON L20 AND (POLY(W) (LACTIDE OR
GLYCOLIDE OR LACTIC OR GLYCOLIC OR CAPRO LACTONE OR CAPROLACTON
E OR CARBONATE OR ESTER AMIDE OR ESTERAMIDE OR ANHYDRIDE OR
AMINO OR ORTHO ESTER OR ORTHOESTER OR URETHANE))

L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON "GLP 1"/CN

L2 1 SEA FILE=REGISTRY ABB=ON PLU=ON "GLP-2 (RANA PIPIENS)"/CN

L3 3 SEA FILE=REGISTRY ABB=ON PLU=ON ("GLP-1 (7- 36)"/CN OR
"GLP-1 (RANA PIPIENS ISOFORM A)"/CN OR "GLP-1 (RANA PIPIENS
ISOFORM B)"/CN)

L4 13 SEA FILE=REGISTRY ABB=ON PLU=ON EXENDIN 3 ?/CN

L5 41 SEA FILE=REGISTRY ABB=ON PLU=ON EXENDIN 4 ?/CN

L7 1 SEA FILE=REGISTRY ABB=ON PLU=ON SUCROSE/CN

L8 2 SEA FILE=REGISTRY ABB=ON PLU=ON (TREHALOSE/CN OR "TREHALOSE
(MOUSE)"/CN)

L9 2 SEA FILE=REGISTRY ABB=ON PLU=ON MANNITOL/CN

L10 5 SEA FILE=REGISTRY ABB=ON PLU=ON L7 OR L8 OR L9

L11 122 SEA FILE=REGISTRY ABB=ON PLU=ON ("GLUCAGON-LIKE PEPTIDE 1"?
OR "GLUCAGON-LIKE PEPTIDE 2"?) /CN

L14 444382 SEA FILE=CAPLUS ABB=ON PLU=ON L10 OR SUGAR OR MONOSACCHARIDE
OR DISACCHARIDE OR (MONO OR DI) (W) SACCHARIDE OR SUCROSE OR
TREHALOSE OR MANNITOL

L17 58 SEA FILE=REGISTRY ABB=ON PLU=ON ("GLUCAGON-LIKE PEPTIDE I"?
OR "GLUCAGON-LIKE PEPTIDE II"?) /CN

L18 232 SEA FILE=REGISTRY ABB=ON PLU=ON L1 OR L2 OR L3 OR L4 OR L5
OR L11 OR L17

L19 2674 SEA FILE=CAPLUS ABB=ON PLU=ON L18 OR GLP1 OR GLP2 OR (GLP OR
GLUCAGON LIKE) (2W) (1 OR 2 OR I OR II) OR GLPI OR GLPII OR
EXENDIN(1W) (3 OR 4 OR III OR IV)

L20 114 SEA FILE=CAPLUS ABB=ON PLU=ON L14 AND L19

L22 1 SEA FILE=REGISTRY ABB=ON PLU=ON "POLY(LACTIDE-CO-GLYCOLIDE)"/
CN

L23 1 SEA FILE=REGISTRY ABB=ON PLU=ON "POLY(LACTIC ACID)"/CN

L24 1 SEA FILE=REGISTRY ABB=ON PLU=ON "POLY(GLYCOLIC ACID)"/CN

L25 2 SEA FILE=REGISTRY ABB=ON PLU=ON POLYCAPROLACTONE/CN

L26 1 SEA FILE=REGISTRY ABB=ON PLU=ON POLYCARBONATES/CN

L27 1 SEA FILE=REGISTRY ABB=ON PLU=ON "POLYANHYDRIDES, C16-20"/CN

L28 2 SEA FILE=REGISTRY ABB=ON PLU=ON ("POLY(P-DIOXANONE)"/CN OR
"POLY(P-DIOXANONE), SRU"/CN)

L29 3 SEA FILE=REGISTRY ABB=ON PLU=ON ("GLYCOLIDE-LACTIDE BLOCK
COPOLYMER"/CN OR "GLYCOLIDE-LACTIDE COPOLYMER"/CN) OR "GLYCOLID
E-LACTIDE POLYMER"/CN

L30 11 SEA FILE=REGISTRY ABB=ON PLU=ON L22 OR L23 OR L24 OR L25 OR
L26 OR L27 OR L28 OR L29

- L33 8 SEA FILE=CAPLUS ABB=ON PLU=ON L20 AND (L30 OR POLYORTHOTHIO
ESTER OR POLYCAPRO LACTONE OR GLYCOLIDE(A) LACTIDE OR POLY(1W) DI
OXANONE OR POLYDIOXANONE)
- L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON "GLP 1"/CN
- L2 1 SEA FILE=REGISTRY ABB=ON PLU=ON "GLP-2 (RANA PIPIENS)"/CN
- L3 3 SEA FILE=REGISTRY ABB=ON PLU=ON ("GLP-1 (7- 36)"/CN OR
"GLP-1 (RANA PIPIENS ISOFORM A)"/CN OR "GLP-1 (RANA PIPIENS
ISOFORM B)"/CN)
- L4 13 SEA FILE=REGISTRY ABB=ON PLU=ON EXENDIN 3 ?/CN
- L5 41 SEA FILE=REGISTRY ABB=ON PLU=ON EXENDIN 4 ?/CN
- L7 1 SEA FILE=REGISTRY ABB=ON PLU=ON SUCROSE/CN
- L8 2 SEA FILE=REGISTRY ABB=ON PLU=ON (TREHALOSE/CN OR "TREHALOSE
(MOUSE)"/CN)
- L9 2 SEA FILE=REGISTRY ABB=ON PLU=ON MANNITOL/CN
- L10 5 SEA FILE=REGISTRY ABB=ON PLU=ON L7 OR L8 OR L9
- L11 122 SEA FILE=REGISTRY ABB=ON PLU=ON ("GLUCAGON-LIKE PEPTIDE 1"?
OR "GLUCAGON-LIKE PEPTIDE 2"?) /CN
- L14 444382 SEA FILE=CAPLUS ABB=ON PLU=ON L10 OR SUGAR OR MONOSACCHARIDE
OR DISACCHARIDE OR (MONO OR DI) (W) SACCHARIDE OR SUCROSE OR
TREHALOSE OR MANNITOL
- L17 58 SEA FILE=REGISTRY ABB=ON PLU=ON ("GLUCAGON-LIKE PEPTIDE I"?
OR "GLUCAGON-LIKE PEPTIDE II"?) /CN
- L18 232 SEA FILE=REGISTRY ABB=ON PLU=ON L1 OR L2 OR L3 OR L4 OR L5
OR L11 OR L17
- L19 2674 SEA FILE=CAPLUS ABB=ON PLU=ON L18 OR GLP1 OR GLP2 OR (GLP OR
GLUCAGON LIKE) (2W) (1 OR 2 OR I OR II) OR GLPI OR GLPII OR
EXENDIN(1W) (3 OR 4 OR III OR IV)
- L20 114 SEA FILE=CAPLUS ABB=ON PLU=ON L14 AND L19
- L34 4 SEA FILE=CAPLUS ABB=ON PLU=ON L20 AND ((POLY(W) (GLYCOLIDE(2A)
LACTIDE) OR CYANOACRYLATE OR CYANO ACRYLATE OR ALKYLENEOXALATE
OR ALKYLENE OXALATE) OR POLYCYANOACRYLATE OR POLYALKYLENEOXALAT
E OR POLYALKYLENE OXALATE)
- L36 8 L31 OR L32 OR L33 OR L34

L36 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 23 Jul 2004

ACCESSION NUMBER: 2004:589569 CAPLUS
DOCUMENT NUMBER: 141:128870
TITLE: Complexes of protein crystals and ionic polymers
INVENTOR(S): Khalaf, Nazer; Govardhan, Chandrika
PATENT ASSIGNEE(S): Altus Biologics Inc., USA
SOURCE: PCT Int. Appl., 80 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004060920	A1	20040722	WO 2003-US41691	20031231
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				

10/688786

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,
NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM,
AZ, BY, KG, KZ
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG

US 2002-437775P P 20021231

PRIORITY APPLN. INFO.:

AB The present invention relates to complexes of protein crystals and ionic polymers and compns. comprising such complexes. The invention further provides methods for producing these complexes and compns., as well as methods for treatment of an individual having a disease requiring or ameliorated by sustained release of protein-based therapies. For example, human growth hormone (hGH) was purified and dissolved in water to yield a final protein concentration of 15 mg/mL. Tris-HCl (1 M, pH 8.6) was added

to a final concentration of 100 mM. To this solution, protamine sulfate was added to a final concentration of 2 mg/mL. Crystals of hGH were grown by adding

calcium acetate (1 M) to the solution so that a final concentration of 85 mM calcium acetate

was obtained. The solution was then incubated for 8 h at 37° to obtain needlelike crystals. The crystals obtained were found to be less than 20 µm in length with a crystallization yield of > 70%.

IT 89750-14-1, Glucagon-like peptide 1

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(complexation of protein crystals with ionic polymers for protein sustained release)

IT 69-65-8, D-Mannitol 99-20-7, Trehalose

26100-51-6, Polylactic acid

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(complexation of protein crystals with ionic polymers for protein sustained release)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 30 Apr 2004

ACCESSION NUMBER: 2004:355193 CAPLUS

DOCUMENT NUMBER: 140:363055

TITLE: Microencapsulation and sustained release of biologically active polypeptides

INVENTOR(S): Costantino, Henry R.; Hotz, Joyce

PATENT ASSIGNEE(S): Alkermes Controlled Therapeutics, Inc. II, USA

SOURCE: PCT Int. Appl., 71 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

Searcher : Shears 571-272-2528

PRIORITY APPLN. INFO.:

in

IT 57-50-1, Sucrose, biological studies 69-65-8,

D-Mannitol 99-20-7, Trehalose

24980-41-4, Polycaprolactone 25248-42-4,

Polycaprolactone 26100-51-6, Poly(

lactic acid) 26124-68-5, Poly(glycolic

acid) 26124-00-3, Poly(g-lactide)
acid) 26780-50-7, Glycolide-lactide

copolymer 29223-92-5, Poly(p-dioxanone)

89750-14-1, GLP 1 89750-15-2,

89750-14-1, GLP I 89750-14-2
Glucagon-like peptide II

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

THU (Therapeutic use); BIOL (Biological study); SSLS (SSLS, (preparation of sustained-release microparticles containing polypeptide, polymer, **sugar** and salt)

L36 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 30 Apr 2004

ED Entered SIN: 30 Apr 2004
ACCESSION NUMBER: 2004:355066 CAPLUS

DOCUMENT NUMBER: 140:363054

DOCUMENT NUMBER: 140:363054
TITLE: Microencapsulation and sustained release of

Searcher : Shears 571-272-2528

Searcher :

Shears

571-272-2528

10/688786

INVENTOR(S): biologically active polypeptides
 Costantino, Henry R.; Hotz, Joyce; Bobka, Edward W.
 PATENT ASSIGNEE(S): Alkermes Controlled Therapeutics, Inc. II, USA; Amylin
 Pharmaceuticals, Inc.
 SOURCE: PCT Int. Appl., 66 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004035762	A2	20040429	WO 2003-US33198	20031017
WO 2004035762	A3	20040805		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2004208929	A1	20041021	US 2003-688059	20031017
US 2004228833	A1	20041118	US 2003-688786	20031017
			US 2002-419388P	P 20021017

PRIORITY APPLN. INFO.:

AB This invention relates to compns. for the sustained release of biol. active polypeptides, and methods of forming and using said compns., for the sustained release of biol. active polypeptides. The sustained release compns. of this invention comprise a biocompatible polymer having dispersed therein, a biol. active polypeptide, a **sugar** and a salting-out salt. For example, sustained-release **exendin-4** microparticles were prepared using **poly(lactide-co-glycolide)** (50:50), 3% **exendin-4**, 2% **sucrose**, and 0.3% ammonium sulfate.

IT 57-50-1, **Sucrose**, biological studies 69-65-8, D-Mannitol 99-20-7, **Trehalose**

26780-50-7, **Glycolide-lactide** copolymer

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of sustained-release microparticles containing polypeptide, polymer, **sugar** and salt)

L36 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 30 Apr 2004

ACCESSION NUMBER: 2004:355059 CAPLUS

DOCUMENT NUMBER: 140:363053

TITLE: Microencapsulation and sustained release of biologically active polypeptides

INVENTOR(S): Costantino, Henry R.; Hotz, Joyce

PATENT ASSIGNEE(S): Alkermes Controlled Therapeutics, Inc. II, USA; Alkermes Inc.

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

Searcher : Shears 571-272-2528

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004035754	A2	20040429	WO 2003-US33062	20031017
WO 2004035754	A3	20041007		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2004208929	A1	20041021	US 2003-688059	20031017
US 2004228833	A1	20041118	US 2003-688786	20031017
			US 2002-419388P	P 20021017

PRIORITY APPLN. INFO.:

AB This invention relates to compns. for the sustained release of biol. active polypeptides, and methods of forming and using said compns., for the sustained release of biol. active polypeptides. The sustained release compns. of this invention comprise a biocompatible polymer having dispersed therein, a biol. active polypeptide, a **sugar** and a salting-out salt. For example, **exendin-4** was encapsulated in **poly(lactide-co-glycolide)** (PLG) polymer using a water-oil-oil (W/O/O) emulsion system. The initial embryonic microparticles were formed in a W/O/O inner emulsion step after which they were subjected to coacervation and hardening steps. A water-in-oil emulsion was created using sonication. The water phase of the emulsion contained dissolved **exendin-4** and excipients, e.g., **sucrose** and ammonium sulfate, while the PLG phase contained polymer dissolved in methylene chloride. The aqueous solution was then injected into the polymer solution while sonicating. The resultant water/oil emulsion was then mixed with silicone oil and the mixture was added to n-heptane to form microparticles. The microparticles were isolated by filtration and vacuum dried.

IT 57-50-1, **Sucrose**, biological studies 69-65-8, D-Mannitol 99-20-7, **Trehalose** 24980-41-4, **Polycaprolactone** 25248-42-4, **Polycaprolactone** 26100-51-6, **Poly(lactic acid)** 26124-68-5, **Poly(glycolic acid)** 26780-50-7, **Poly(lactide-co-glycolide)** 89750-14-1, **GLP-1** 89750-15-2, **Glucagon-like peptide II** RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (preparation of sustained-release microparticles containing polypeptide, polymer, **sugar** and salt)

L36 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
 ED Entered STN: 27 Jun 2003
 ACCESSION NUMBER: 2003:491015 CAPLUS
 DOCUMENT NUMBER: 139:57936

TITLE: Solid pharmaceutical for parenteral administration
 INVENTOR(S): Hansen, Henrik Egesborg; Sabra, Mads Christian;
 Rasmussen, Thomas Buch
 PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
 SOURCE: PCT Int. Appl., 51 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003051328	A1	20030626	WO 2002-DK865	20021217
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1458352	A1	20040922	EP 2002-787456	20021217
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
US 2003161881	A1	20030828	US 2002-322143	20021218
PRIORITY APPLN. INFO.:			DK 2001-1901	A 20011218
			US 2001-342065P	P 20011219
			WO 2002-DK865	W 20021217

AB A solid pharmaceutical composition for parenteral administration comprises an inner matrix containing at least 1 therapeutic agent, and a biodegradable, and water-impermeable coating covering part of the surface of the composition, wherein the inner matrix disintegrates upon contact with animal tissue or tissue fluids. The coating is made from a material selected from the group consisting of polyesters such as **polyglycolides, polylactides and polylactic polyglycolic acid** copolymers, etc. The inner-matrix may comprise a binder, e.g., **mannitol**, and the active agent may comprise insulin. Dry amorphous Maltidex H16323 (35 g) was mixed with 35 g human insulin. The mixture was cooled and investigated under a microscope and there was no air entrapment, which also is indicated by the constant torque. The insulin activity before mixing was 99.62% and after mixing 97.52%.

IT 57-50-1, **Sucrose**, biological studies 69-65-8, Mannitol 99-20-7, **Trehalose** 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 26100-51-6, Poly(lactic acid) 26124-68-5, Poly(Glycolic acid) 26780-50-7, Glycolide-lactide copolymer 30846-39-0, Glycolide-L-lactide copolymer
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (solid pharmaceutical for parenteral administration)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

10/688786

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 22 Mar 2002
ACCESSION NUMBER: 2002:220398 CAPLUS
DOCUMENT NUMBER: 136:252466
TITLE: Injectable hybrid matrix mixtures
INVENTOR(S): Mineau-Hanschke, Rochelle; Lamsa, Justin Chace;
Abalos-Coyle, Deborah
PATENT ASSIGNEE(S): Transkaryotic Therapies, Inc., USA
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022157	A2	20020321	WO 2001-US42085	20010910
WO 2002022157	A3	20030116		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2001095028	A5	20020326	AU 2001-95028	20010910
PRIORITY APPLN. INFO.:			US 2000-662037	A1 20000914
			WO 2001-US42085	W 20010910

AB The invention features a method of delivering a polypeptide to an animal.
The method involves introducing into the animal a fluid mixture containing:

a population of cultured vertebrate cells genetically engineered to express the polypeptide; and a plurality of microcarriers.

IT **118549-37-4, Insulinotropin**
RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(delivery of; injectable hybrid matrix mixts. containing genetically engineered cells for protein delivery)

IT **26124-68-5, Polyglycolic acid**
RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(fibers; injectable hybrid matrix mixts. containing genetically engineered cells for protein delivery)

L36 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 13 Apr 2001
ACCESSION NUMBER: 2001:265288 CAPLUS
DOCUMENT NUMBER: 134:300844

Searcher : Shears 571-272-2528

10/688786

TITLE: Hybrid matrices and hybrid matrix mixtures for delivering a polypeptide to an animal
 INVENTOR(S): Mineau-Hanschke, Rochelle; Lamsa, Justin Chace; Abalos-Coyle, Deborah
 PATENT ASSIGNEE(S): Transkaryotic Therapies, Inc., USA
 SOURCE: PCT Int. Appl., 85 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001024842	A2	20010412	WO 2000-US27362	20001004
WO 2001024842	A3	20010830		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6419920	B1	20020716	US 1999-413715	19991005
CA 2379971	AA	20010412	CA 2000-2379971	20001004
AU 2000078545	A5	20010510	AU 2000-78545	20001004
BR 2000014503	A	20020611	BR 2000-14503	20001004
EP 1221937	A2	20020717	EP 2000-968669	20001004
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
JP 2003511100	T2	20030325	JP 2001-527841	20001004
NZ 518759	A	20041029	NZ 2000-518759	20001004
PRIORITY APPLN. INFO.:			US 1999-413715	A1 19991005
			US 2000-662037	A1 20000914
			US 1995-548002	A3 19951025
			US 1999-312246	A2 19990514
			WO 2000-US27362	W 20001004

AB A composition having a body of matrix material made up of insol. collagen fibrils, and disposed there within: (a) a plurality of vertebrate cells; (b) a plurality of microcarriers; and (c) an agent such as a factor that promotes vascularization, a cytokine, a growth factor, or ascorbic acid. The invention also features a method of delivering a polypeptide to an animal. The method involves introducing into the animal a fluid mixture containing: (a) a population of cultured vertebrate cells genetically engineered to express the polypeptide; and (b) a plurality of microcarriers. Heparin-sepharose hybrid collagen matrixes were prepared. The heparin-sepharose beads were coated with bFGF (50 µg/mL packed beads). The beads containing human foreskin fibroblast clone expressing hFVIII at level between 20,000-30,000 mU/24h/106 cells were s.c. implanted into mice. The amount of hFVIII production was significantly higher than uncoated matrixes.

IT 118549-37-4, Insulinotropin
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

Searcher : Shears 571-272-2528

10/688786

(Uses)
(hybrid matrixes and hybrid matrix mixts. for delivering polypeptide to animal)
IT 26124-68-5, Polyglycolic acid
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hybrid matrixes and hybrid matrix mixts. for delivering polypeptide to animal)

L36 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 10 Nov 1999

ACCESSION NUMBER: 1999:717837 CAPLUS

DOCUMENT NUMBER: 131:314241

TITLE: Stabilized protein crystals, formulations containing them and methods of making them

INVENTOR(S): Margolin, Alexey L.; Khalaf, Nazer K.; St. Clair, Nancy L.; Rakestraw, Scott L.; Shenoy, Bhami C.

PATENT ASSIGNEE(S): Altus Biologics Inc., USA

SOURCE: PCT Int. Appl., 201 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9955310	A1	19991104	WO 1999-US9099	19990427
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2330476	AA	19991104	CA 1999-2330476	19990427
AU 9937646	A1	19991116	AU 1999-37646	19990427
AU 757991	B2	20030313		
EP 1073421	A1	20010207	EP 1999-920064	19990427
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002512949	T2	20020508	JP 2000-545510	19990427
US 2002045582	A1	20020418	US 1999-374132	19990810
US 6541606	B2	20030401		
ZA 2000006023	A	20011113	ZA 2000-6023	20001026
US 2003175239	A1	20030918	US 2003-383266	20030305
PRIORITY APPLN. INFO.:			US 1998-83148P	P 19980427
			US 1998-224475	A2 19981231
			US 1997-70274P	P 19971231
			WO 1999-US9099	W 19990427
			US 1999-374132	A1 19990810
AB	Methods are provided for the stabilization, storage, and delivery of biol. active macromols., such as proteins, peptides and nucleic acids. Methods are provided for the crystallization of proteins and nucleic acids and for the			

Searcher :

Shears

571-272-2528

preparation of stabilized protein or nucleic acid crystals for use in dry or slurry formulations in pharmaceutical and veterinary formulations, diagnostics, cosmetics, food, and agricultural feeds. The crystals are stabilized by addition of excipients such as carbohydrates or by encapsulating them in a polymeric carrier. Methods are presented for encapsulating proteins, glycoproteins, enzymes, antibodies, hormones, and peptide crystals or crystal formulations into compns. for biol. delivery to humans and animals. Thus, lipase from *Candida rugosa* was dissolved in distilled water, treated with celite, adjusted to pH 4.8 with AcOH, filtered, ultrafiltered to remove proteins of <30 kDa mol. weight, and crystallization was initiated by addition of 2-methyl-2,4-pentanediol. **Sucrose** was added to the mother liquor to a concentration of 10%, and the crystals were separated by centrifugation, suspended in EtOH, and air dried at room temperature. Alternatively, the lipase crystals were crosslinked and encapsulated in lactic acid/glycolic acid copolymer; the microspheres formed were 90 µm in diameter

IT **87805-34-3, Glucagon-like peptide I**

(human)

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(stabilized protein crystals, formulations containing them and methods of making them)

IT **24980-41-4, Polycaprolactone 25248-42-4,**

Polycaprolactone 26100-51-6, Poly(

lactic acid) 31621-87-1, Polydioxanone

RL: BUU (Biological use, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(stabilized protein crystals, formulations containing them and methods of making them)

IT **57-50-1, Sucrose, biological studies 99-20-7,**

Trehalose

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(stabilizer; stabilized protein crystals, formulations containing them

and

methods of making them)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, RAPRA, PLASNEWS, CBNB, CIN, CEN, DISSABS, PASCAL' ENTERED AT 14:28:37 ON 08 DEC 2004)

L37

4 S L36

L38

4 DUP REM L37 (0 DUPLICATES REMOVED)

L38 ANSWER 1 OF 4 WPIDS COPYRIGHT 2004 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-571333 [55] WPIDS

DOC. NO. CPI: C2004-208534

TITLE: Complex for treating disease state ameliorated by sustained release of protein-based therapies, in mammal, comprises protein crystal and ionic compound.

10/688786

DERWENT CLASS: A96 B04 D16
INVENTOR(S): GOVARDHAN, C; KHALAF, N
PATENT ASSIGNEE(S): (ALTU-N) ALTUS BIOLOGICS INC
COUNTRY COUNT: 107
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004060920	A1	20040722	(200455)*	EN	80
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
AU 2003300126	A1	20040729	(200477)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004060920	A1	WO 2003-US41691	20031231
AU 2003300126	A1	AU 2003-300126	20031231

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003300126	A1 Based on	WO 2004060920

PRIORITY APPLN. INFO: US 2002-437775P 20021231

AN 2004-571333 [55] WPIDS

AB WO2004060920 A UPAB: 20040826

NOVELTY - A complex (I), comprising a protein crystal and an ionic compound, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a composition (II) comprising an insoluble phase suspended in a solution phase, where the insoluble phase is a complex comprising a protein crystal, an ionic compound and an excipient and where the solution phase is chosen from water, buffer, preservative, isotonicity agents, stabilizers or their combination;

(2) producing (M1) (I) comprising mixing a solution of a protein with a crystallization reagent mix to produce a solution, adding deionized water to the solution, incubating the solution for 2-48 hours at a temperature of 4-40 deg. C, until protein crystals are formed, and adding an ionic compound to the solution, or by mixing a solution of a protein with crystallization buffer to produce a solution, adding deionized water to the solution, adding an ionic compound to the solution, and incubating the solution for 2-48 hours at a temperature of 4-40 deg. C, until protein crystals are formed; and

(3) producing (M2) a composition comprising a protein complex suspended in a solution phase, involves mixing the complex prepared in (M1) in a solution phase chosen from water, buffer, preservative, isotonicity agents, stabilizers and their combination.

Searcher : Shears 571-272-2528

10/688786

ACTIVITY - None given.

MECHANISM OF ACTION - Protein therapy.

No biological data given.

USE - (I) and (II) are useful for treating a disease state in a mammal (human) (claimed), where the disease state ameliorated by sustained release of protein-based therapies.

Dwg.0/10

L38 ANSWER 2 OF 4 WPIDS COPYRIGHT 2004 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-389587 [36] WPIDS

CROSS REFERENCE: 2004-357213 [33]; 2004-389517 [36]

DOC. NO. CPI: C2004-145971

TITLE: Composition for the sustained release of a biologically active polypeptide (e.g. **exendin-4** for treating diabetes) comprises a biocompatible polymer containing the polypeptide, a **sugar** and salting-out salt.

DERWENT CLASS: A96 B01 B04 D16

INVENTOR(S): COSTANTINO, H R; HOTZ, J

PATENT ASSIGNEE(S): (ALKE-N) ALKERMES CONTROLLED THERAPEUTICS

COUNTRY COUNT: 106

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004036186	A2	20040429	(200436)*	EN	71
RW:	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS				
	LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW				
W:	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK				
	DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP				
	KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG				
	PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ				
	VC VN YU ZA ZM ZW				
AU 2003277446	A1	20040504	(200467)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004036186	A2	WO 2003-US33168	20031017
AU 2003277446	A1	AU 2003-277446	20031017

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003277446	A1 Based on	WO 2004036186

PRIORITY APPLN. INFO: US 2002-419388P 20021017

AN 2004-389587 [36] WPIDS

CR 2004-357213 [33]; 2004-389517 [36]

AB WO2004036186 A UPAB: 20041019

NOVELTY - A composition (I) for the sustained release of a biologically active polypeptide, comprises a biocompatible polymer having the polypeptide, a **sugar**, and a salting-out salt dispersed within it.

Searcher : Shears 571-272-2528

10/688786

ACTIVITY - Antidiabetic; Immunosuppressive; Antiinfertility;
Neuroprotective; Cardiovascular-Gen.; Anorectic.

MECHANISM OF ACTION - None given.

USE - (I) is useful for the sustained release of a biologically active polypeptide. (I) comprising **exendin-4** is specifically useful for treating Type 2 diabetes (all claimed). Compositions of the invention are also useful for treating diseases such as Type I diabetes, impaired glucose tolerance, obesity, cardiovascular disorders, infertility, and multiple sclerosis.

ADVANTAGE - (I) has improved release properties compared to prior art sustained release compositions. The bioavailability of the polypeptide is increased, and the release profile is smoother. The stability of polypeptides in the composition is good. The use of sustained release compositions such as (I) increases patient compliance and acceptance by eliminating the need for repetitive administration.

DESCRIPTION OF DRAWING(S) - The figure shows a graph representing serum **exendin-4** levels (pg/ml) in rats administered 40 mg of exendin-containing microparticles with 30 mg of placebo microparticles or 10 mg of 2% triamcinolone acetonide-containing microparticles versus time in days.
Dwg.18/18

L38 ANSWER 3 OF 4 WPIDS COPYRIGHT 2004 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-389517 [36] WPIDS

CROSS REFERENCE: 2004-357213 [33]; 2004-389587 [36]

DOC. NO. CPI: C2004-145917

TITLE: Composition for sustained release of a polypeptide useful for the treatment of e.g. type 2 diabetes comprises a biocompatible polymer dispersed in a polypeptide, a **sugar** and a salting-out salt.

DERWENT CLASS: A96 B04 D16

INVENTOR(S): COSTANTINO, H R; HOTZ, J; HOTZ, J M

PATENT ASSIGNEE(S): (ALKE-N) ALKERMES CONTROLLED THERAPEUTICS; (COST-I) COSTANTINO H R; (HOTZ-I) HOTZ J M

COUNTRY COUNT: 106

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004035754	A2	20040429	(200436)*	EN	72
RW:	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS				
	LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW				
W:	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK				
	DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP				
	KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG				
	PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ				
	VC VN YU ZA ZM ZW				
AU 2003286472	A1	20040504	(200467)		
US 2004228833	A1	20041118	(200477)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004035754	A2	WO 2003-US33062	20031017
AU 2003286472	A1	AU 2003-286472	20031017

Searcher : Shears 571-272-2528

10/688786

US 2004228833	A1 Provisional	US 2002-419388P	20021017
		US 2003-688786	20031017

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003286472	A1 Based on	WO 2004035754

PRIORITY APPLN. INFO: US 2002-419388P 20021017; US
2003-688786 20031017

AN 2004-389517 [36] WPIDS
CR 2004-357213 [33]; 2004-389587 [36]
AB WO2004035754 A UPAB: 20041203

NOVELTY - A composition (C1) comprises a biocompatible polymer dispersed in a polypeptide, a **sugar** and a salting-out salt
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:
(a) a composition (C2) comprising a biocompatible polymer containing **exendin-4** dispersed in it, **sucrose** and ammonium sulfate; and
(b) treating type 2 diabetes involving administering (C2).
ACTIVITY - Antidiabetic; Anorectic; Cardiovascular-Gen.
MECHANISM OF ACTION - None given.
USE - For sustained release of a polypeptide; in the treatment of e.g. type 2 diabetes (claimed). Also useful for the treatment of impaired glucose tolerance, obesity, cardiovascular disorders and other disorders that can be treated by the polypeptides.
ADVANTAGE - The composition provides sustained release of the polypeptide at therapeutic levels over a period of 1 - 4 weeks; thus improves patient compliance an acceptance by eliminating the need for repetitive administrations and polypeptide bioavailability; while retaining the activity and potency of the polypeptide over a desired period of release, and increases therapeutic benefit by eliminating fluctuations in the active agent concentration in blood level. The composition further exhibits a reduced lag phase, which provides for a smoothing out of the release profile and contributes to an increase in the amount of agent released, and potentially lowers the total amount of polypeptide necessary to provide a therapeutic benefit by reducing the fluctuations in the blood level. The presence of corticosteroid in the composition further modifies the release profile of the peptide i.e. increases the bioavailability of the peptide from the composition.
Dwg.0/18

L38 ANSWER 4 OF 4 WPIDS COPYRIGHT 2004 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-636536 [60] WPIDS
DOC. NO. CPI: C2003-173927
TITLE: Solid pharmaceutical composition for parenteral administration of e.g. analgesic, comprises coated inner matrix coated that disintegrates upon contact with animal tissue or tissue fluids.
DERWENT CLASS: A96 B07 D22
INVENTOR(S): BUCH-RASMUSSEN, T; HANSEN, H E; SABRA, M C; RASMUSSEN, T
PATENT ASSIGNEE(S): (BUCH-I) BUCH-RASMUSSEN T; (HANS-I) HANSEN H E; (SABR-I) SABRA M C; (NOVO) NOVO NORDISK AS

Searcher : Shears 571-272-2528

COUNTRY COUNT: 103
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003051328	A1	20030626	(200360)*	EN	51
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU					
MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK					
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR					
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT					
RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA					
ZM ZW					
US 2003161881	A1	20030828	(200363)		
AU 2002351739	A1	20030630	(200420)		
EP 1458352	A1	20040922	(200462)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC					
MK NL PT RO SE SI SK TR					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003051328	A1	WO 2002-DK865	20021217
US 2003161881	A1	US 2001-342065P	20011219
		US 2002-322143	20021218
AU 2002351739	A1	AU 2002-351739	20021217
EP 1458352	A1	EP 2002-787456	20021217
		WO 2002-DK865	20021217

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2002351739	A1 Based on	WO 2003051328
EP 1458352	A1 Based on	WO 2003051328

PRIORITY APPLN. INFO: DK 2001-1901

20011218

AN 2003-636536 [60] WPIDS

AB WO2003051328 A UPAB: 20030919

NOVELTY - A solid pharmaceutical composition comprises an inner matrix comprising therapeutic agent(s), and biodegradable and water-impermeable coating covering part of the surface of the composition. The inner matrix disintegrates upon contact with animal tissue or tissue fluids.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for manufacturing the above composition by coating a mold with a biodegradable polymer, melting and injecting an inner matrix comprising a therapeutic agent(s) into the mold, hardening the mold, and cutting the resulting rod into elongated compositions.

USE - For parenteral administration of therapeutic agents, e.g. analgesics, antianxiety drugs, antiarthritic drugs, antibiotic agents, anticholinergics, antidepressants, antidiabetics, antiemetics, antihistaminics, antihypertensive agents, antiinflammatory drugs, antimigraine agents, antiparkinsonism agents, antipasmodesics, antipsychotics, antithrombotic agents, antiviral agents, appetite suppressants, blood factors, cardiovascular drugs, cerebral vasodilators,

chemotherapeutic drugs, cholinergic agonists, contraceptives, coronary agents, diuretics, hormonal agents, immunosuppressive agents, growth factors, narcotic antagonists, opioids, peripheral vasodilators, tranquilizers, vaccines, immunogenic agents, or immunizing agents. The therapeutic agent also includes hormones, lipids, nucleic acids, nucleotides, oligonucleotides, oligosaccharides, organics, peptides, mimetics, antibodies, peptides, polysaccharides, or protein; or coagulation factors such as FVII, and FVIII, GLP-1, EPO, TPO, interferon or their derivatives. It is for parenteral injection in an animal consisting of fish, birds, molluscs, reptiles, or mammals including human. It is used for immunization (all claimed).

ADVANTAGE - By providing a disintegratable and/or soluble inner matrix, the rate of release of the drug can be controlled, thus providing a more constant release rate. The whole composition is broken down completely in the tissue within short period than to the time required for release of the therapeutic agent. Surgery is not required to remove the composition after release of the therapeutic agent, and local irritation caused by the composition is a very limited. The composition can penetrate the epidermis or mucosa of a human being at a force of less 5 N without or with the use of trocar of syringe.

Dwg.0/9

(FILE 'MEDLINE' ENTERED AT 14:46:00 ON 08 DEC 2004)

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L39      26723 SEA FILE=MEDLINE ABB=ON PLU=ON POLYMERS/CT
L40      29970 SEA FILE=MEDLINE ABB=ON PLU=ON CARBOHYDRATES/CT
L41      205 SEA FILE=MEDLINE ABB=ON PLU=ON L39 AND L40
L42      79055 SEA FILE=MEDLINE ABB=ON PLU=ON PEPTIDES/CT
L43      128407 SEA FILE=MEDLINE ABB=ON PLU=ON PROTEINS/CT
L44      27 SEA FILE=MEDLINE ABB=ON PLU=ON L41 AND (L42 OR L43)
L45      3800 SEA FILE=MEDLINE ABB=ON PLU=ON SALTS/CT
L46      1 SEA FILE=MEDLINE ABB=ON PLU=ON L44 AND L45

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L39	26723	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	POLYMERS/CT
L40	29970	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	CARBOHYDRATES/CT
L41	205	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L39 AND L40
L42	79055	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	PEPTIDES/CT
L43	128407	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	PROTEINS/CT
L44	27	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L41 AND (L42 OR L43)
L47	8854	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	CATIONS/CT
L48	6348	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	ANIONS/CT
L49	1	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L44 AND (L47 OR L48)

L50 2 S L46 OR L49

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L50  ANSWER 1 OF 2          MEDLINE on STN
ACCESSION NUMBER:          2002034751      MEDLINE
DOCUMENT NUMBER:           PubMed ID: 11763031
TITLE:                     Effect of dissolved organic material and cations on
                           freeze-thaw conditioning of activated and alum sludges.
AUTHOR:                    Ormeci B; Vesilind P A
CORPORATE SOURCE:          Department of Civil and Environmental Engineering, Duke
                           University, Durham, NC 27706-0287, USA.. banu@duke.edu
SOURCE:                    Water research, (2001 Dec) 35 (18) 4299-306.
                           Journal code: 0105072. ISSN: 0043-1354.
PUB. COUNTRY:              England: United Kingdom

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Searcher : Shears 571-272-2528

10/688786

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200204
ENTRY DATE: Entered STN: 20020124
Last Updated on STN: 20020410
Entered Medline: 20020409

ED Entered STN: 20020124
Last Updated on STN: 20020410
Entered Medline: 20020409

AB Freeze-thaw conditioning effectively dewateres alum and activated sludges, but it works better on alum sludge than it does on activated sludge. The main difference between alum sludge and activated sludge is that activated sludge has high concentrations of both dissolved organic material and ions. Dissolved organic material and ions may possibly alter the freezing process and decrease the effectiveness of freeze-thaw conditioning on activated sludge. The objective of this study is to investigate the effect of dissolved organic material and cations on freeze-thaw conditioning of sludges, and to improve the effectiveness of freeze-thaw conditioning on activated sludge. The results of this study show that although protein, carbohydrate and cation concentrations in activated sludge supernatant are initially high, they dramatically increase after freeze-thaw conditioning. The increase is likely to come from the release of extracellular and intracellular material to sludge supernatant. The observed increase in the DNA concentration in activated sludge supernatant after freeze-thaw conditioning indicates that freeze-thaw causes cell disruption. Alum sludge supernatant, on the other hand, initially contains low concentrations of proteins, carbohydrates and cations which do not noticeably change after freeze-thaw conditioning. When ECPs (extracellular polymers) and cations are extracted from activated sludge before freeze-thaw conditioning, the sludge settles and dewateres better after the freeze-thaw. The resulting aggregates are smaller and denser resembling the "coffee ground" aggregates of alum sludge.

L50 ANSWER 2 OF 2 MEDLINE on STN
ACCESSION NUMBER: 92081486 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1746350
TITLE: Solute-polymer-water interactions and their manifestations.
AUTHOR: Chinachoti P; Schmidt S J
CORPORATE SOURCE: Department of Food Science, University of Massachusetts,
Amherst 01003.
SOURCE: Advances in experimental medicine and biology, (1991) 302
561-83. Ref: 110
Journal code: 0121103. ISSN: 0065-2598.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199201
ENTRY DATE: Entered STN: 19920202
Last Updated on STN: 19920202
Entered Medline: 19920116
ED Entered STN: 19920202
Last Updated on STN: 19920202

Searcher : Shears 571-272-2528

Entered Medline: 19920116

AB This paper reviews recent work on the interactions among solutes, polymers, and water in model food systems. Four possible combinations of ionic or non-ionic solutes and polymers are discussed in terms of their water sorption behavior. Comparisons between experimental values and values calculated by a mass balance equation are made. The salt-protein, sucrose-starch, and salt-starch combinations sorbed less water than that predicted by calculated sorption values. This was attributed to the inability of the interacted solutes to sorb their full complement of water. On the other hand, the sucrose-protein combination exhibited an increase in the amount of water sorbed over that calculated by the mass balance equation. This was attributed to the increased hydration of the protein component, due to an effect of the sucrose. One of the major factors involved in these solute-polymer interactions is the competition for water among the solutes and polymers. This competition, in turn, is greatly influenced by the "state" of the water associated with these components. Lastly, examples of how biological, chemical, and physico-chemical phenomena in foods are affected by these factors are also given. The phenomena discussed include mold germination, the Maillard reaction, ascorbic acid oxidation, protein functionality, starch gelatinization and retrogradation, and the complication of the order of mixing.

FILE 'HOME' ENTERED AT 14:49:49 ON 08 DEC 2004